

1. (Amended) An optional disk apparatus performing either one of recording and reproduction of an optical disk in which groove-shaped groove tracks and land tracks present between the groove tracks are alternately connected to each other in a spiral shape, comprising:

a recording and reproduction unit for recording a signal in both at least one continuous groove track and at least one continuous land track, and after recording the signal in both the groove track and the land track, then reproducing the signal from both the groove track and the land track;

a detector for detecting a quality of the signal thus recorded and reproduced by the recording and reproduction unit;

a control parameter setting unit for setting a control parameter related to at least one of the recording and the reproduction of the optical disk; and

a controller for changing the control parameter set by the control parameter set by the control parameter setting unit, repeating the recording and reproduction performed by the recording and reproduction unit and detection performed by the detector every time the control parameter is changed, and determining the control parameter based on the quality of the signal detected by the detector.

11. (Amended) A method for setting a control parameter of an optical disk apparatus performing at least one of recording and reproduction of an optical disk in which groove-shaped groove tracks and land tracks present between the groove tracks are alternately connected to each other in a spiral shape, comprising:

a recording and reproduction step of recording a signal in both at least one continuous groove track and at least one continuous land track, and after recording the signal in both the groove track and the land track, then reproducing the signal from both the groove track and the land track;

a detection step of detecting a quality of the signal thus recorded and reproduced during the recording and reproduction step;